MIXED METALLOCENE CATALYST SYSTEMS CONTAINING A POOR COMONOMER INCORPORATOR AND A GOOD COMONOMER INCORPORATOR

5

10

15

20

ABSTRACT

The present invention provides polymerization catalyst compounds, catalyst systems including these catalyst compounds, and to their use in the polymerization of ethylene and at least one comonomer. In particular, the invention provides a catalyst system comprising a poor comonomer incorporating catalyst compound and a good comonomer incorporating catalyst compound. Preferably, the low comonomer incorporating catalyst compound is a metallocene containing at least one substituted or unsubstituted fused ring cyclopentadienyl based ligand which is substantially directed to the front of the molecule, contains a long bridging group, or which contains a methyl substitution pattern which correlates to poor comonomer incorporation. The invention also provides methods of selecting the poor comonomer incorporating metallocene to pair with the good comonomer incorporating metallocene to produce polymers that are easy to process into a variety of articles, especially polyethylene based film, having enhanced properties.